



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

The Valorous Expedition. Reports by Dr. Gwyn Jeffreys and Dr. Carpenter. (From the Proceedings of the Royal Society, Vol. xxv. No. 173.) With chart and Sections. London. 1876. 8vo, pp. 60.

Check List of the Fishes of the Fresh Waters of North America. By David S. Jordan and Herbert E. Copeland. (From the Bulletin of the Buffalo Society of Natural Sciences.) 1877. 8vo, pp. 31.

The Fourth Annual Report of the Board of Directors of the Zoölogical Society of Philadelphia. 1876. 8vo, pp. 38.

Catalogue of the publications of the U. S. Geological and Geographical Survey of the Territories. F. V. Hayden, Geologist-in-Charge. Second Edition. (Revised to December 31, 1876.) Washington, D. C. 1877. 8vo, pp. 38.

Remarks on some Algæ found on the Water Supplies of the City of Boston. By W. G. Farlow. (Extracted from the Bulletin of the Bussey Institution. January, 1877.) 8vo, pp. 80.

Geological Survey of New Jersey. Annual Report of the State Geologist, for the year 1876. Trenton, New Jersey. 1876. 8vo, pp. 56.

New York Aquarium Journal and Guide. Illustrated. New York.

## GENERAL NOTES.

### BOTANY.<sup>1</sup>

ON THE PASSAGE OF PLASMA THROUGH LIVING UNPERFORATED MEMBRANES, BY M. CORNU. — The transfer of elaborated matters in cells presents many difficulties; in many cases osmosis alone is an inadequate explanation; it has been thought necessary to assume solution and recomposition of the substance, as in the case of starch. That the transfer of starch takes place in this way has been apparently admitted as the result of Mer's researches. Does plasma pass in the same way through the cell wall, having become first dissolved? Cornu thinks that it is transferred without solution, and bases his conclusion on his study of the germination of the spores of one of the Mucedineæ. In this case the plasma passes directly through the wall without rupturing it. The details of this most interesting observation are given in *Comptes Rendus*, January 15, 1877.

PHELLODENDRON. — The list of exotic trees capable of withstanding the severities of the New England climate is not a long one, and any addition to it is a cause for congratulation, especially when, as in the case of *Phellodendron Amurense*,<sup>2</sup> the new-comer is extremely ornamental, and of rapid growth. Two plants of this *Phellodendron*, raised from seed in the Harvard Botanic Garden many years ago, are now some fifteen feet high, and have flowered the past summer for the first time; and as they have been fully exposed during ten or fifteen years, their hardiness in our climate would seem to be beyond doubt. The flowers of *Phellodendron* are diœcious, but by a piece of remarkable good fortune the two plants bore flowers of the two sexes, and an

<sup>1</sup> Conducted by PROF. G. L. GOODALE.

<sup>2</sup> Rupert and Maxim., Fl. Amus. t. 4.

abundant supply of seed has been secured. *Phellodendron Amurense* is a native of Manchuria, where, according to Maximowicz, it becomes a handsome, thick-leaved tree, fifty feet high, and with a trunk a foot in diameter. It occurs also in Japan, where a second species has been detected.

*Phellodendron* can be characterized by its corky bark; opposite, unequally pinnate leaves; oblong, lanceolate, acuminate, sharply serrate leaflets; small, green, diœcious flowers, borne at the extremity of the branches in loose corymbs; and by its five seeders, black, odoriferous, pea-shaped drupes, with flattened seeds, which in our species are two lines long, and covered with a shining black testa.

Its nearest North American allies are *Ptelea* and *Xanthoxylum*. — C. S. SARGENT.

MODIFICATION OF THE GLUMES OF GRASSES DEPENDING ON THE SEX OF THE FLOWERS. — Fournier gives as the result of his study of the grasses of Mexico the following statement: Among grasses with separated sexes, the female flowers differ very little, if at all, as regards the situation or form of the floral envelopes, when the sexes are borne on different plants; but when the plant is monœcious the glumes of the two sexes are widely different. These differences are most marked in certain genera of Chlorideæ, normally diœcious and accidentally monœcious. The grass described by Engelmann under the name *Buchlœe dactyloides* is a curious example in point. Beside this is now placed *Opizia stolonifera*, of which Presl had seen only the female plant. Although the female flowers of these plants differ very widely, their male plants resemble each other so much that they have been put in the same genus. *Casiostega humilis* is the male form of *Buchlœe*, and *C. anomala* is the male form of *Opizia*.

LIVING AND FOSSIL OAKS OF EUROPE COMPARED BY DE SAPORTA. — Before the end of the Miocene, Europe possessed oaks which closely resembled *Quercus Cerris*. They had cupules of the same kind as the one now living, and the fruit matured in the second year. Three species in Auvergne belonged to the type of *Quercus Robur*, and “did not differ from the forms of this group more than these forms differ from one another.” *Quercus pedunculata*, *sessiliflora*, and *pubescens* are relatively recent. In the middle of France, at least, these races have been preceded by other oaks, which have since partly disappeared and partly have been confined to a region farther south. On the other hand, species which now occupy only limited stations where they are threatened with extinction, like *Quercus Cerris* in France, appear to have had direct representatives there at an epoch relatively remote.

ABSORPTION OF CARBONIC ACID BY THE VEGETABLE CELL WALL, BY PROFESSOR BOHM, OF VIENNA. — Carbonic acid is atmospheric air, absorbed not only by the contents of green cells but by the cell walls themselves. Branches dried at 100° C. absorb more carbonic acid than

fresh twigs. But while in the latter the absorbed gas can be driven off tolerably rapidly by oxygen, hydrogen, or nitrogen, this happens in the first just as in the case of carbon, only more slowly."

BOTANICAL NOTES FROM RECENT PERIODICALS. — *Flora*. Batalin, Mechanism of the Movements in Insect-Eating Plants (not yet finished). Dr. Celakovsky, On the Morphological Structure of *Vincetoxicum* and *Asclepias*. A. Poulsen, The Occurrence of Crystals surrounded by Cellulose (Rosanoff's crystals detected in the leaf stalks of many Leguminosæ).

*Botanische Zeitung*. 1877, No. 1. Dr. DeVries, On the Extension of Growing Vegetable Cells by Turgescence. V. Waldheim, A Fungus on Rumex. Nos. 2 and 3, Beyerinck, On Galls. No. 4, Jack, On European Hepaticæ. Continued in No. 5. Dingler, On *Lathræa rhodopea*.

### ZOOLOGY.

THE COMMON CRAB (*CARCINUS MÆNAS*) AT THE HAWAIIAN ISLANDS. — I desire to direct attention to the crustacean genus *Carcinus*, of which there is but a single species, *mænas*. In 1873 the writer obtained a specimen from the Hawaiian Islands. This is the first well-authenticated instance, to his knowledge, where the species is recorded as coming from Pacific regions. In the Museum of the Academy of Natural Sciences of Philadelphia there is a specimen labeled from Australia, with an interrogation mark. It is found along the whole coast of Europe, from the Baltic to the Mediterranean; it is equally common and as widely distributed along our Atlantic coast. Heller reports having found the species on the eastern coast of South America, and it has likewise been obtained from the Red Sea; and now the Pacific Islands are added as a habitat. In the latter region, however, it cannot be very common, as it has eluded research up to the time mentioned, notwithstanding the fact that these islands have been pretty thoroughly ransacked for this kind of life. It may, however, be considered as cosmopolitan, as having a wider range than any other known species of crab.

What is particularly interesting in connection with its wide distribution is the identity of the species wherever found. Very slight differences can be observed in the specimens coming from these widely separated localities. The differences are not sufficient to constitute distinct species; at the most they would only form varieties. Carcinologists have agreed, however, to ignore the slight geographical variations and to designate them all by the same name.

The difference consists principally in the extent of the granulations on the surface of the carapace, and in the prominence of the front. Our Atlantic-coast crab differs from the European in having the surface more granular, and the teeth of the front somewhat more prominent; in the Pacific specimen the granulations are larger, and the front more projecting when compared with the former. It will be observed that